

2004 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting



June 20-26, 2004 **Monterey Doubletree and Monterey Marriott Hotels** Monterey, CA



25. Propagation

Radar imagery

Reflector antennas

Ultra wideband systems Waveguiding structures

A11. Interconnects and packaging

B11. Theoretical electromagnetics

B14. Nonlinear electromagnetics

D8. Vacuum microelectronics

B15. Educational Methods and Tool

Remote sensing

Other topics

A9. Impulse Radar

B10. Scattering

27

29.

33

35.

36.

Propagation in rough enclosures

Random media and rough surfaces

Reconfigurable antennas and arrays

Scattering, diffraction, and RCS

A10. Planar structures and microstrip circuits

A12. Microwave to sub-mm measurements

B12. Transient fields, effects, and systems

D9. RF and microwave application of MEMS

D11. Complex materials in electronics/photonics

D10. EM field propagation in nanostructures

E4. Communication in the presence of noise

F6. Calibration and validation of satellite

environments (e.g., mines)

Propagation/coupling in complex/confined

B9. Rough surfaces and random media

Transients and time-domain techniques

http://aps2004.llnl.gov/

Final Call for Papers
The 2004 IEEE International Symposium on Antennas and Propagation, sponsored by the IEEE Antennas and Propagation Society (AP-S), and the 2004 USNC/URSI (U.S. National Committee of the International Union of Radio Science) National Radio Science meeting, sponsored by USNC Commissions A, B, D, E, F, and K, will be held jointly on June 20-26, 2004 at the Monterey Doubletree and Monterey Marriott Hotels in Monterey, California. The technical sessions, workshops, and short courses will be coordinated between the two symposia to provide a comprehensive and well-balanced program. This meeting is intended to provide an international forum for the exchange of information on state-of-the-art research in antennas, propagation, and electromagnetic engineering.

Paper Submission: Authors addressing advancements and describing innovations in the fields of electromagnetics, antennas, wave propagation, and other topics of interest to AP-S and URSI are invited to submit contributions for review and possible presentation in the symposium. Suggested topics and general information are listed in this call. In addition to regularly scheduled sessions for oral and poster presentations, there will be a student paper competition as well as special sessions, workshops, and short courses that will address timely topics and state-of-the-art advancements in these fields.

AP-S General Topics

- Adaptive, active, and smart antennas
- Analysis for multi-scale problem
- 3. Biomedical applications
- Broadband and multi-frequency antennas
- 5. Chaotic systems
- Digital beamforming
- Electromagnetic education
- Electromagnetic properties of materials

Commission B Topics (Fields and Waves)

B1.2. Antennas for wireless communications

B1.5. Mechanical distortion effects in arrays and

Electromagnetic theory

A1. Quantum metrology and concepts

- 10. EM measurements
- 11. FEM methods
- 12. FDTD methods

A2. Time and frequency

B1. Antennas

B1.3. Arrays

reflectors

A3. Time-domain metrology

A4. EMC and EM pollution

B1.1. Antenna analysis and design

B2. Novel and complex media

B1.4. Microstrip and printed antennas

- 13. Frequency-selective surfaces
- High frequency and Asymptotic methods
- 15 Integral equation methods
- Inverse scattering
- 17. Microstrip antennas, arrays, and circuits
- Mobile and PCS antennas
- Monolithic array techniques
- Non-linear electromagnetics
- 21. Numerical methods
- Optimization methods in EM design
- 23. Phased-array antennas
- 24. Photonics in antenna systems
- Commission A Topics (Electromagnetic Metrology)
 - A5. Noise A6. Materials
 - A7. Bioeffects and medical applications
 - A8. Antennas and EM-field metrology
 - Guided waves and wave guiding structures
 - High-frequency techniques
 - Inverse scattering B5.
 - Numerical methods: diff. eq. based
 - B6.1. Frequency-domain methods

devices and circuits

D6. High-speed devices and circuits

- B6.2. Time-domain methods
- B7. Numerical methods: int. eq. based
- B8. Numerical methods: hybrid/other tech.

Commission D Topics (Electronics and Photonics) D5. Microwave, mm-wave, and sub-mm-wave

- D1. Optoelectronic techniques and devices D2. Cryogenic electronic devices and circuits
- Optical transmission and interconnection
- D4. PBG in photonics and mm-wave technology

Commission E Topics (Electromagnetic Noise and Interference) E3. Spectrum management and utilization

- E1. High power electromagnetics
- E2. Transients fields, effects, and systems

Commission F Topics (Wave Propagation and Remote Sensing) F1. Propagation modeling and measurement

- F2. Satellite and terrestrial propagation
- F3. Point to point propagation effects
- Commission K Topics (Electromagnetics in Biology and Medicine) K3. Dosimetry
- K1. Biological effects
- K2. Biomedical applications

K4. Exposure assessment

- F4. Mobile and personal access radio propagation
- F5. Remote sensing of oceans and atmosphere

D7. Mesoscale devices and associated materials

measurements

K5. Application of RF to medicine

Instructions for AP-S and URSI Authors

Manuscript Preparation: The language of the symposium is English. The text should be formatted single-spaced and sized for 21.5 × 28 cm (8.5 × 11 inch) paper. The title should be centered 1 inch from the top of the first page. The author's (or authors') name and complete organizational affiliation should be two lines below the title. If there are multiple authors, the presenter is to be specified with an asterisk. The text should start three lines below the last name. Left- and right-hand margins should be 4 cm (1.5 inches). A 2.5 cm (1 inch) margin should be at the top and bottom of all pages. Paragraphs are to be separated with one blank line. Submissions must withstand a linear reduction to 70% of original size and maintain readability. Only the author that submits the paper will receive an acknowledgement of the submission.

Paper Submission: ONLY ELECTRONIC SUBMISSIONS IN PDF FORMAT WILL BE ACCEPTED. For details on electronic submission, please

refer to the symposium Web site. Please read the information concerning fonts before submitting a paper, otherwise the paper may be rejected.

Additional instructions for AP-S Authors

The paper must be limited to four pages including text, references, and figures. The introduction should indicate clearly how the submission relates to previous work and the unique aspects of the current submission. Footnotes should not be used except for credits to sponsoring agencies. A signed IEEE copyright form is necessary with all AP-S submissions and can be either faxed or sent by mail (see Submission Address on next page). The contact information to use is in the submission address information listed in this call. Copyright forms are in recent issues of the IEEE Transactions on Antennas

and Propagation and at IEEE's Web site (http://www.ieee.org/about/documentation/copyright/). Missing copyright forms will make it necessary to reject the paper. It will be understood that all submissions have been cleared by the sponsoring agency.

Additional instructions for URSI Authors

The abstract must consist of at least 250 words and must be limited to one page, including figures. Do not include a list of references. However, a few openliterature references may be included parenthetically, for example: (R. L. Lewis and J. R. Johler, Radio Sci., 2, 75-81, 1976). Acknowledgement of financial support is not deemed appropriate. Also, please identify the Commission and session topic for the paper and provide brief statements of what new knowledge is contributed by the paper and the relationship of the work to previous work.

AP-S Student Paper Competition

To be considered, a student must be the first author of the paper. The student's advisor should attach a statement that his/her contribution is primarily advisory. In addition, the transmittal letter should clearly indicate "student paper submission" and conform to all other submission requirements and instructions for authors as described in this call. Additional information may be obtained from the symposium Web site.

Submission Address and Deadline: All paper and abstract submissions must be received in PDF format via the symposium Web site by January 16, 2004. Address all AP-S and URSI correspondence, including inquiries concerning papers, abstracts, and the technical program, and copyright forms to:

Andrew J. Poggio (Email: apoggio@llnl.gov) Lawrence Livermore National Laboratory 7000 East Ave., M/S L-154 Livermore, CA 94550 Phone: (925) 422-8557, Fax: (925) 424-3519

DEADLINE FOR RECEIPT January 16, 2004

Special Sessions: The call for special sessions will remain open until November 15, 2003. After this date, no more suggestions for special sessions will be accepted. In addition, all speakers for the special sessions must be confirmed by December 1, 2003. The associated papers and abstracts will be due on January 16, 2004. A list of special sessions will be posted on the symposium Web site in December 2003. For more information, please contact Brian Grant as listed under Special Sessions.

Exhibits: Industrial exhibits will be open June 21-23, 2004. If you wish to erect an exhibit, please contact Jian-X. Zheng as listed under Exhibitors. Short Courses/Workshops: Individuals desiring to organize a short course or workshop should contact the appropriate chair.

Updates: Updated information will be posted on the conference Web site as appropriate.

General Chair

Hsueh-yuan Pao Lawrence Livermore National Laboratory Phone: (925) 424-9744

Email: pao2@llnl.gov

Publicity

Ronald Kane Lawrence Livermore National Laboratory Phone: (925) 422-7393 Email: kane2@llnl.gov

URSI Liaison Gerald Burke

Lawrence Livermore National Laboratory Phone: (925) 422-8414 Email: burke2@llnl.gov

Secretary Michael Thorburn Space Systems / Loral Phone: (650) 852-5520 Email: m.a.thorburn@ieee.org

Spouse Program Sharron Rucker Email: sharr7@attbi.com Vice Chair

Robert Sharpe Lawrence Livermore National Laboratory Phone: (925) 422-0581 Email: rsharpe@llnl.gov

Publications Nathan Champagne

Lawrence Livermore National Laboratory Phone: (925) 422-1612 Email: nchampagne@llnl.gov

Binh Tran Lawrence Livermore National Laboratory Phone: (925) 422-0452 Email: tran24@llnl.gov

Student Paper Contest Kathleen L. Melde University of Arizona

Phone: (520) 626-2538 Email: melde@ece.arizona.edu **Symposium Coordinator**

Ann Tyler Lawrence Livermore National Laboratory Phone: (925) 422-4380 Email: tyler8@llnl.gov

Exhibitors

Jian-X. Zheng Zeland Software, Inc. Phone: (510) 623-7162 Email: jian@zeland.com

Short Courses/Workshops

Lawrence I. Williams **Ansoft Corporation** Phone: (714) 528-9358 Email: williams@ansoft.com

Michael Brenneman Ansoft Corporation Phone: (408) 261-9095 x201 Email: meb@ansoft.com

Registration

Daniel White Lawrence Livermore National Laboratory Phone: (925) 422-9870 Email: dwhite@llnl.gov

Local Arrangements Don Rucker

Northrop Grumman Mission Systems Phone: (916) 570-4063 Email: don.rucker@ngc.com

Anthony Jennetti Northrop Grumman Mission Systems Phone: (408) 531-2026

Richard Adler Naval Post-Graduate School

Phone: (408) 646-1111 Email: rwa@attglobal.net **Technical Program**

Andrew J. Poggio Lawrence Livermore National Laboratory Phone: (925) 422-8557 Email: apoggio@llnl.gov

Kendall F. Casey, Vice Chair SRI International Phone: (650) 859-4725 Email: kendall.casey@sri.com

Treasurer David Steich Lawrence Livermore National Laboratory

Email: anthony.jennetti@ngc.com Phone: (925) 422-6978 Email: dsteich@llnl.gov

> Special Sessions J. Brian Grant ANT-S

Phone: (925) 337-0104 Email: grant.04@ant-s.com